

This listing of claims will replace all prior versions of claims in the application.

Claims 1-14. (cancelled)

Claim 15. (new) A device for introducing gas into a fluidized bed comprising:
at least one gas inlet pipe located underneath and/or above the fluidized bed,
wherein the gas inlet pipe has gas-swirling means at its mouth.

Claim 16. (new) A device of claim 15 wherein the gas-swirling means form at least
one narrowing or widening of the pipe lumen.

Claim 17. (new) A device of claim 16 wherein the narrowing has at least one edge.

Claim 18. (new) A device of claim 15 wherein the gas-swirling means comprise a
thread.

Claim 19. (new) A device of claim 15 wherein the gas-swirling means comprise at
least one bead.

Claim 20. (new) A device of claim 15 wherein the gas-swirling means comprise at
least one screen, at least one turbulene grid and/or at least one perforated diaphragm.

Claim 21. (new) A device of claim 15 wherein the gas comprises ethane, oxygen
and/or hydrogen chloride.

Claim 22. (new) A fluidized reactor bed comprising a device of claim 15.

Claim 23. (new) A process for the production of 1,2-dichloroethane with a fluidized bed reactor comprising a device for introducing gas, the method comprising:

introducing ethane, oxygen and/or hydrogen chloride into a fluidized bed comprising a catalyst,

wherein the device comprises at least one gas inlet pipe located underneath and/or above the fluidized bed and the gas inlet pipe has gas-swirling means at its mouth.

Claim 24. (new) The process of claim 23 wherein the gas inlet pipe is arranged underneath the fluidized bed and the gas current is discharged at an average discharge velocity in the range of from 0.5 to 10 m/s.

Claim 25. (new) The process of claim 23 wherein the gas inlet pipe is arranged underneath the fluidized bed and the gas current is discharged at an average discharge velocity in the range of from 3 to 6 m/s.

Claim 26. (new) The process of claim 23 wherein the gas inlet pipe is arranged above the fluidized bed and the gas current is discharged at an average discharge velocity in the range of from 0.7 to 10 m/s.

Claim 27. (new) The process of claim 23 wherein the gas inlet pipe is arranged above the fluidized bed and the gas current is discharged at an average discharge velocity in the range of from 2 to 5 m/s.